

From: Peterson, Lance
To: [Sheldrake, Sean](#)
Cc: [BAYUK Dana](#)
Subject: Gasco - Seepage meter data gap investigation oversight - Wednesday September 6, 2017
Date: Wednesday, September 6, 2017 2:51:56 PM
Attachments: [Proposed seepage meter location map Summer 2017 Sampling Memo.pdf](#)

WORK ACTIVITIES CONDUCTED

Jason Silvertooth from CDM Smith was present to conduct safety and seepage meter installation oversight at the Gasco project area from 07:20 to 11:32 hours on Wednesday, September 06, 2017. The purpose of the site visit was to perform health and safety oversight of diving activities and in-water work, and monitor work progress. The objective of the work is to deploy seepage meters to evaluate groundwater seepage into the Willamette River adjacent to the Gasco site. The work was performed by NW Natural's contractors Anchor QEA, Coastal Monitoring Associates (CMA), and Research Support Services (RSS). The weather was smoky (due to wildfires in the region), with a high of approximately 80 degrees Fahrenheit.

At 07:20 hrs., the CDM Smith representative arrives at the Cathedral Park boat ramp, which is the designated meeting point for the project. Anchor QEA, CMA, and RSS are preparing the boats for the day's work.

At 7:30 hrs., the safety meeting is conducted by Jason Silvertooth (CDM Smith) and Joe Smith (Anchor QEA). Also present at the meeting are Bart Chadwick (CMA), Chris Smith (CMA), Alan Sims (CMA), Eric Parker (RSS), Dale Dickenson (RSS), Viktor Gazarian (RSS), and Andrew Muth (RSS). The following topics are discussed during the meeting:

1. Air quality remains poor due to smoke from forest fires in the region. Workers will continue to limit exertion to prevent respiratory problems, and monitor each other for signs of respiratory issues. Particulate air filters (NIOSH N95) are provided for anyone who is experiencing respiratory discomfort or wants to take preventative action.
2. Vessel traffic on the Willamette River and in particular the project area is discussed. Workers will continue monitoring wakes and alert others on the boats when wakes are approaching. Anchor QEA has coordinated with Gasco regarding the barge that is scheduled to depart from the load/unload location in the afternoon. Dive operations are upstream of the load/unload area, but the barge movement will be noted during project operations.
3. Diver and equipment decontamination is reviewed, including appropriate PPE (i.e., nitrile gloves, rain jacket, eye protection) when spraying equipment or divers.

At 07:40 hrs., arrive at the Gasco area. A communication check is performed with both of the diver's masks, and the A-frame is in place in preparation of raising the dive flags.

At 08:10 hrs., the boat is in place at location GRD-05 (see attached map for proposed locations). Eric Parker (RSS) calls the U.S. Coast Guard, Multnomah County Sherriff, and Willamette River traffic to notify them of diving operations. Joe Smith (Anchor QEA) had established contact with NW Natural to notify them of the dive operations and coordinate the timing of NW Natural vessel traffic. The dive flag is raised to position at the top of the A-frame.

At 08:20 hrs., the process of deploying the seepage meter at GRD-05 begins.

At 9:23 hrs., deployment of the seepage meter at GRD-05 is complete. During decontamination procedures, no visible contamination was observed.

At 9:47 hrs., the boat is in place at GRD-06. The process of deploying the seepage meter begins.

At 11:14 hrs., deployment of the seepage meter at GRD-06 is complete. During decontamination procedures, no visible contamination was observed.

At 11:25 hrs., anchors are pulled, diver flags are taken down, and communications are sent that dive operations are complete.

At 11:32 hrs., CDM Smith and Anchor QEA representatives are off the boat and demobilize from the site. All site operations are complete for the day.

HEALTH AND SAFETY ISSUES

None noted.

ACTIVITIES DISCUSSED

The seepage meters are all to be deployed for three days. The first seepage meter (GRD-01) was deployed at 10:40 AM on 9/4/17, so it will be retrieved at 10:40 AM or later on 9/7/17. Accordingly, the project team will meet at 10:00 AM on 9/7/17 at the Cathedral Park boat ramp. Joe Smith (Anchor QEA) will provide project updates to the new representative from Anchor QEA (Holly Samaha), who will be on site as field coordinator for the remainder of the work.

PHOTOS

Refer to previous emails for photos sent on 9/6/17 of seepage meter deployment and diver activities.

Lance Peterson, RG, LHG

CDM Smith 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007

D: 425-519-8382 **O:** 425-519-8300 **C:** 425-417-5946

peterstone@cdmsmith.com www.cdmsmith.com